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## PATENT ABSTRACTS OF JAPAN

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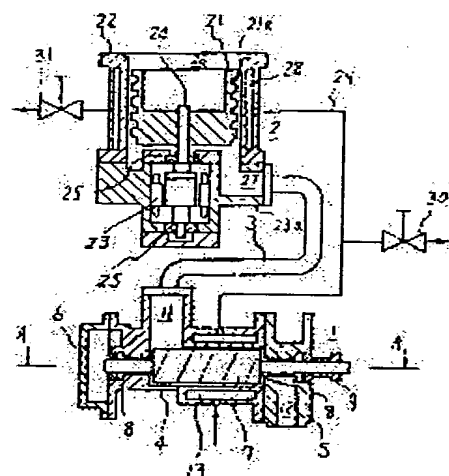
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## (54) VACUUM EXHAUST DEVICE

## (57)Abstract:

**PURPOSE:** To perform baking of a vacuum device without using a heater and to reduce an ultimate pressure by providing a means to guide a compression heat, generated at a pump at a subsequent stage, to a pump at a preceding stage.

**CONSTITUTION:** Since sucked gas is compressed to an atmospheric pressure with the aid of a screw vacuum pump 1, the temperature of a working chamber is increased to approximate 200-400° C. Heat the temperature of which is increased to a high value passes through the inner wall of a main casing 4 to heat circulating water in a heat receiving jacket 13. Circulating water the temperature of which is increased to a high value is guided through a conduit 29 to a heating jacket 28 and heats a casing 22 of a screw groove molecular pump 2, and further heats a screw groove rotor 21. As a result, separation of a gas molecule adsorbed to the inside of the screw groove molecular pump 2 is promoted, and the pressure of a vacuum device can be easily reduced. Since heating degassing operation of the vacuum device, so-called baking, is effected by means of the compression heat of the pump itself, a heater and source equipment can be eliminated.



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